


SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

RD0506LS-SB5 — Diffused Junction Silicon Diode Ultrahigh-Speed Switching Diode

Features

- High breakdown voltage ($V_{RRM}=600V$).
- High reliability.
- Easy to be mounted, good heat dissipation.
- Fast reverse recovery time.
- Low noise at the time of reverse recovery.

Specifications

Absolute Maximum Ratings at $T_a=25^{\circ}C$

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}		600	V
Average Output Current	I_O		5	A
R.M.S Forward Current	$I_F(RMS)$	$T_c=25^{\circ}C$ (SANYO's ideal heat dissipation condition) Package limited	12	A
Surge Forward Current	I_{FSM}	Sine wave, 10ms single pulse	120	A
Junction Temperature	T_j		150	$^{\circ}C$
Storage Temperature	T_{stg}		-55 to +150	$^{\circ}C$

Electrical Characteristics at $T_a=25^{\circ}C$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=1mA$	600			V
Forward Voltage	V_F	$I_F=5A$		1.3	1.6	V
Reverse Current	I_R	$V_R=600V$			50	μA
Reverse Recovery Time	t_{rr1}	$I_F=5A, di/dt=100A/\mu s$		44	50	ns
	t_{rr2}	$I_F=0.5A, I_R=1A$		17		ns
Thermal Resistance	$R_{th(j-c)}$	Between the junction part and the case : smoothing current			6.25	$^{\circ}C / W$

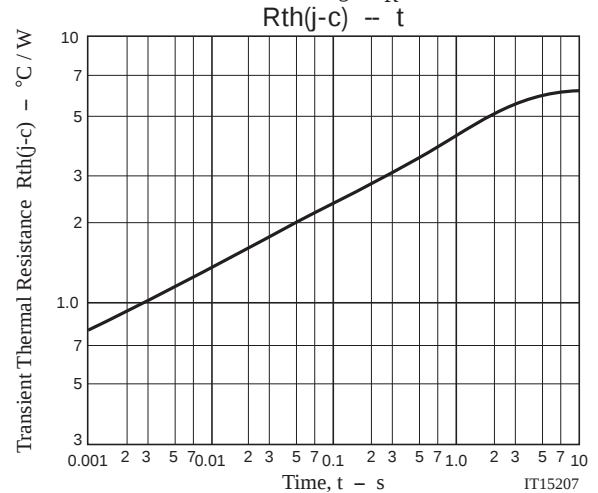
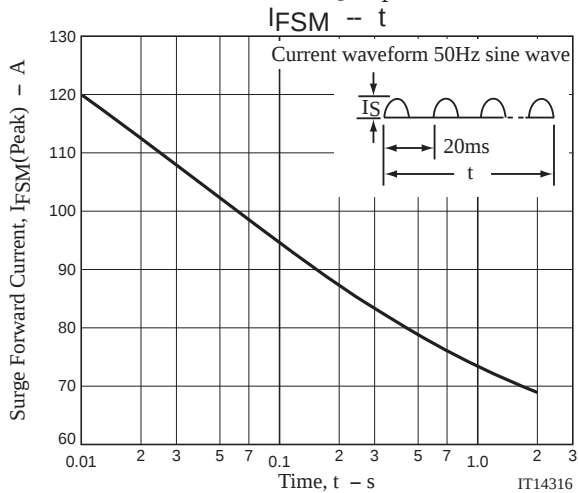
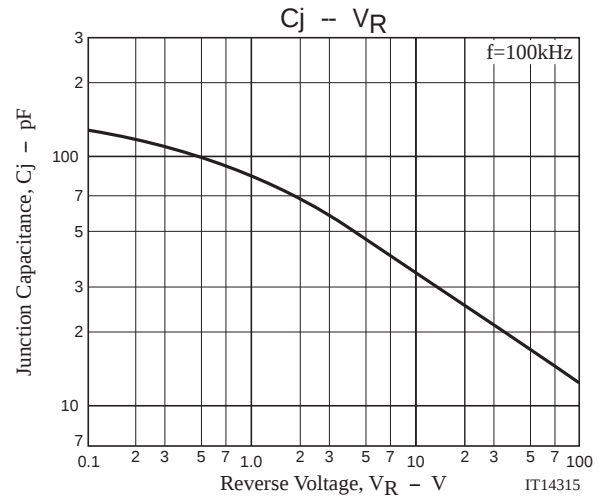
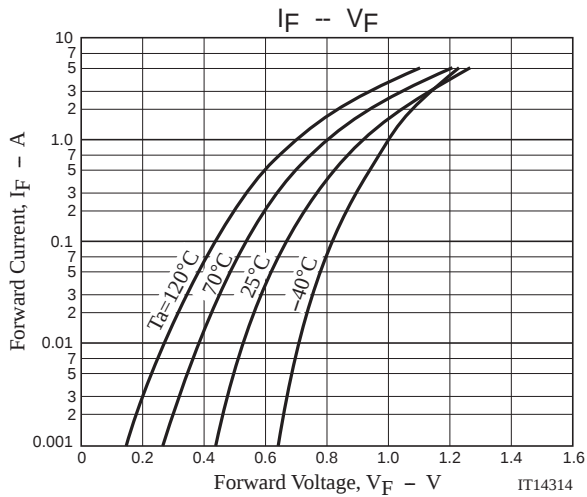
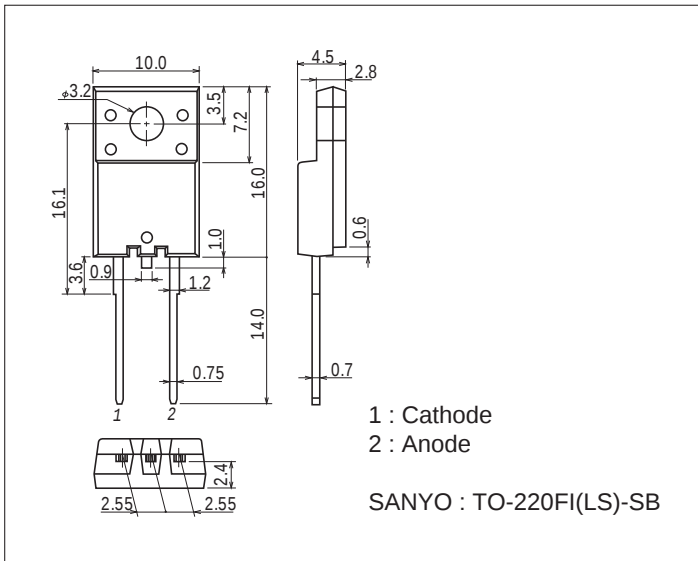
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Package Dimensions

unit : mm (typ)

7510-001



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